



## PATENT ABSTRACTS OF JAPAN

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(54) **PRODUCTION OF PHOTSENSITIVE  
 ELECTROCONDUCTIVE PASTE AND  
 ELECTRODE USING THE SAME**

(57) Abstract:

**PROBLEM TO BE SOLVED:** To obtain an electroconductive paste formable into a thin film on a glass substrate, etc., for formation of fine electrode patterns with a low electrical resistance and high bond strength, by including electroconductive powder, a photosensitive organic component and glass frit specifying each of its glass transition point, glass softening point, particle size and thermal expansion coefficient.

**SOLUTION:** This paste comprises: electroconductive

power preferably containing at least one kind selected from Ag, Au, Pd, Ni and Pt; a photosensitive organic component preferably containing a photosensitive polymer or photosensitive oligomer, photosensitive monomer and photopolymerization initiator; and a glass frit having a glass transition point of 400 to 500°C, glass softening point of 450 to 550°C, mean particle size of 0.5 to 1.4  $\mu\text{m}$ , the 90% particle size of 1 to 3  $\mu\text{m}$  and the top particle size of  $\leq 4.5 \mu\text{m}$ , and further a thermal expansion coefficient of  $(75 \text{ to } 90) \times 10^{-7}/^\circ\text{K}$  at 50 to 400°C, and preferably containing 20 to 80 wt.%  $\text{Bi}_2\text{O}_3$  in terms of oxide.

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